Mitt. Münch. Ent. Ges. 68 | 145—157 München, 1. 2. 1979 ISSN 0340—4943

African species of Formicomus

(Coleoptera, Anthicidae)

J. C. Van Hille

Department of Zoology and Entomology, Rhodes University, Grahamstown, South Africa

Introduction

In a collection of *Anthicidae* which I had on loan from the Museum G. Frey, I found twelve species of *Formicomus* of which, to the best of my knowledge, five species are undescribed.

The following species are discussed in this paper:

F. albolineatus Pic (1893)
F. niveopilosus Fairmaire (1893)
F. schimperi Pic (1898)
F. schmitti Pic (1900)
F. villiersi Bonadona (1969)
F. chappuisi Pic (1939)
F. reidi van Hille (1967)
F. bechynei n. sp.
F. mediospinis n. sp.
F. kumbaensis n. sp.
F. barombiensis n. sp.
F. fontensis n. sp.

The localities extend over French Guinea, Nigeria, S. Ethiopia, Tanzania, Zambia and Mozambique.

All the type material is deposited in the Museum G. Frey.

In addition there occur in the collection a number of single males and females which I am unable to identify.

Formicomus albolineatus Pic (1893)

Described from Gabon.

French Guinea, Region Kindia, Cassia, 27. 5. 1961, Bechyne: 1♂.

Formicomus niveopilosus Fairmaire (1893)

Described from Mali, Kayes.

Nigeria, Kano Flughafen, 13. 8. 1954, H. Franz: 2♂♂, 2♀♀.

Nigeria, Kano, 4. 10. 1955, Bechyne: 1♀.

These specimens have a length of 3,56 mm (3,13—4,0 mm); Fairmaire gives 3 mm for the length.

I have seen specimens from:

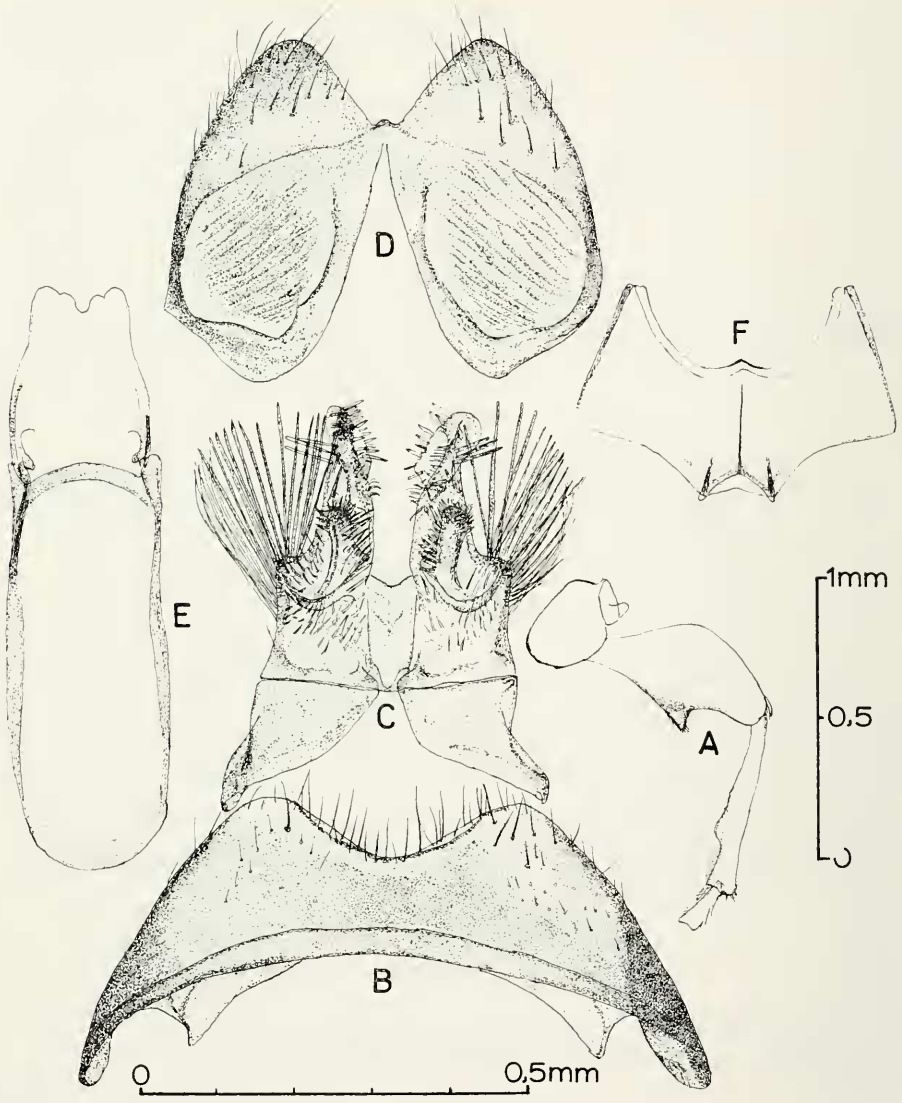

Fig. 1. *Formicomus niveopilosus* Fairmaire
A. Front leg of ♂; B. last exposed abdominal sternite of ♂; C. sternite of retractile segment of ♂; D. tergite of retractile segment of ♂; E. tegmen of aedeagus; F. metathoracic sternite of ♂ (B, C, D and E at same scale; A and F as indicated).

Chad, on river Chari between Bousso and Mandjaffer; Niger, Baguazani Mts.; Sudan, Darfur, Wadigolo, El Fasher.

In this species the elytral posthumeral band does not reach the median line. The elytral shoulders are sloping and rounded. This is a characteristic which goes together with a reduction of the wings. Male characteristics as illustrated (fig. 1).

Formicomus schimperi Pic (1898)

Described from Ethiopia.

Tanzania, S. Manyara See, Shaurimoyo, 3. 1963, E. Haaf: 1♂.

Also recorded from Kenya, Tana River (Pic 1921).

I have seen specimens from:

Tanzania, Tumba Camp, Rukwa Valley; Sudan, Tali Post, Yirol; Rhodesia, Sebungwe Area; West Africa, coll. Freyschmidt, det. Pic, in the collection of the Naturhistorisches Museum, Vienna.

In this species there is no posthumeral elytral hairband and in the male there are no special structures on the metathoracic sternite or on the 1st abdominal sternite. Male characteristics as figured (fig. 2). Seen by means of transmitted light the elytral punctures are surrounded by a darker area (fig. 2 F), but the implantation of some of the larger hairs is not surrounded by a darker area. Behind each puncture occurs a dark spot; this spot does not occur behind the punctures on head, prothorax and abdomen. This dark spot occurs on the elytra of many species of *Formicomus* e. g. *F. reidi, F. bechynei, F. foutensis* and *F. albolineatus* but in the last one the spots are absent in the area of the closely placed hairs of the transverse elytral hairband.

Formicomus schmitti Pic (1900)

Described from Tanzania, Zambesi, Nova Choupanga.

French Guinea, Region Kindia, Damakanya, 20.—30. 4. 1951, Bechyne: 1♂; Mozambique, Limpopo, 4. 7. 1953, Zumpt: 2♀♀; Mozambique, Luabo Sambesi, 12. 1951, B. and P. Stuckenberg: 2♂♂, 2♀♀; Tanzania, Kingolwira, 1. 1963, E. Haaf: 2♂♂, 1♀; Tanzania, Parc Berge, Gonja Urwald, 3. 1963, E. Haaf: 1♀; Tanzania, Morogoro, 1. 1963, E. Haaf: 2♂♂, 3♀♀.

Also recorded from Rhodesia, Zambia, Malawi and Zaire in the Upemba national Park.

I have recently discussed and illustrated this and the following species (van Hille, 1977).

Formicomus villiersi Bonadona (1969)

Described from Dahomey, I. F. A. N. and Ivory Coast.

Nigeria, Kamerun, Fotabe, 1937, Kutter: 1♀; Nigeria, Kamerun, Distr. Kumba, Lake Barombi, 24. 11. 1955, Bechyne: 1♂, 1♀.

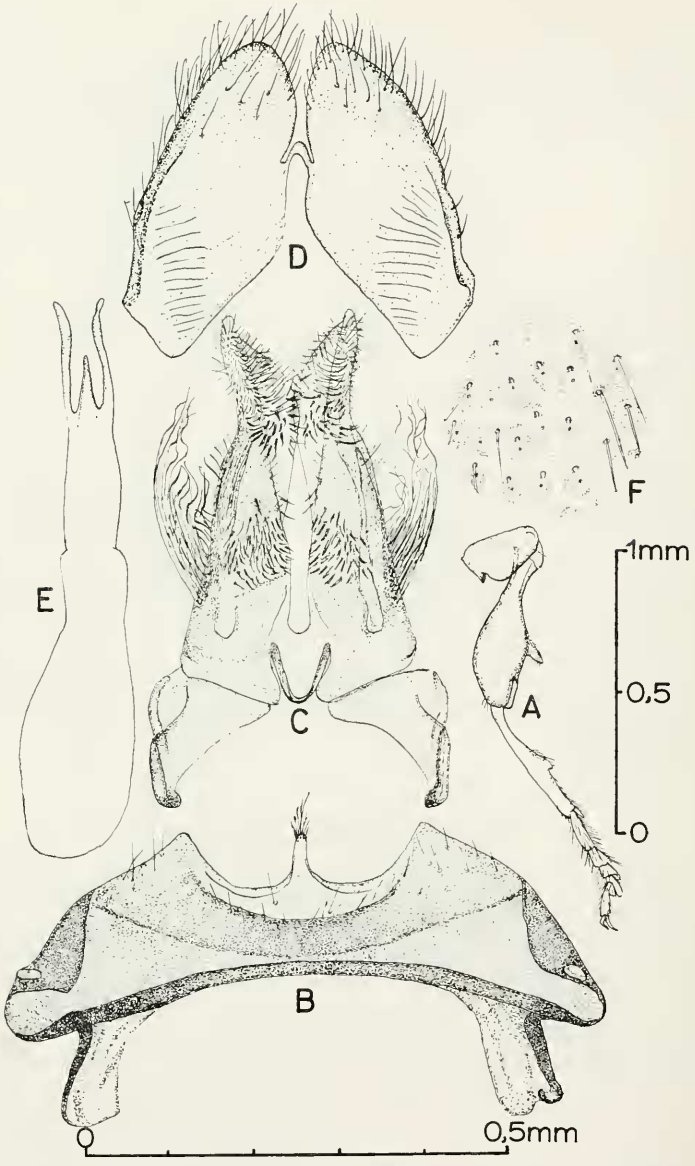

Fig. 2. *Formicomus schimperi* Pic
A. Front leg of ♂; B. last exposed abdominal sternite of ♂; C. sternite of retractile segment of ♂; D. tergite of retractile segment of ♂; E. tegmen of aedeagus; F. detail of elytral appearance seen by means of transmitted light.
(B, C, D, E and F at same scale; A as indicated).

Formicomus chappuisi Pic (1939)

Described from S. Ethiopia.
Zambia, Lochinvar b. Monze, 13.—26. 10. 1962, F. Zumpt: 1♂.
Also recorded from Kenya and Sudan.

Formicomus reidi van Hille (1967)

Described from Zaire, Garamba national Park.
Nigeria, Kamerun, Jos, 9. 10. 1955, Bechyne: 1♂; French Guinea, Région Kindia, Mt. Gangan 800 m, 20. 5. 1951, Bechyne: 1♀; French Guinea, Fouta Djallon, Dalaba 1200 m, 7. 6. 1951: 1♀.
Also recorded from Sudan, Tali Post, Yirol.

Formicomus **bechynei** n. sp.

French Guinea, Fouta Djallon, Dalaba, 4. 1951, Bechyne: 13♂♂, 7♀♀; French Guinea, Region Kindia, Mt. Gangan 900 m, 8. 5. 1951, Bechyne: 1♂.
In the collection of the Natural History Museum, Vienna, is a slide 782A with the genitalia of a specimen from Sierra Leone, Njala.

Length: 3,84 mm (3,24—4,37). Width over broadest part of the elytra: 1,11 mm (0,95—1,31).

Head: oval at the back; chagrinated; testaceous to black; with recumbent hairs and a few erect hairs.

Prothorax: middorsally chagrinated over the whole length, laterally smooth and glossy; testaceous to black; fine recumbent hairs and a few erect hairs.

Elytra: long and narrow, glossy with simple punctures; testaceous to almost black; shoulders somewhat angular; with a posthumeral depression in which the hairs are more conspicuous than over the rest of the elytra, but not forming a clear hairband. Behind this area the individual hairs are thinner and shorter but towards the apex they are again longer and thicker. Seen by means of transmitted light the longer thicker hairs appear dark and the thinner ones transparent but under incident light the thicker hairs reflect the light strongly and appear white.

Wings: fully developed in both sexes.

Antennae: slender, testaceous; the last two or three segments darker.

Legs: light to dark testaceous.

Undersurface: light to dark testaceous; with recumbent hairs. Secondary sex characteristics of male as figured (fig. 3).
This species appears long and slender; its colour is variable.

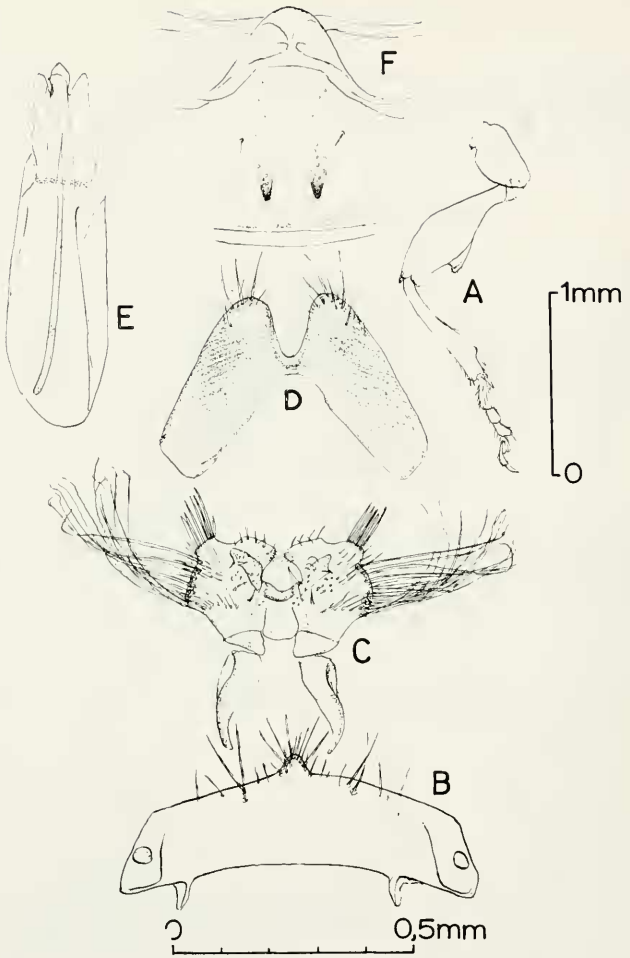

Fig. 3. *Formicomus bechynei* n. sp.
A. Front leg of ♂; B. last exposed abdominal sternite of ♂; C. sternite of retractile segment of ♂; D. tergite of retractile segment of ♂; E. tegmen of aedeagus; F. first abdominal sternite of ♂.
(B, C, D, E and F at same scale; A as indicated).

Formicomus **mediospinis** n. sp.

French Guinea, Region Kindia, Mt Gangan 500 m, 25. 5. 1951, B e c h y n e : 1 ♀; French Guinea, Region Kindia, Mt Gangan 900 m, 8. 5. 1951, B e c h y n e : 1 ♂. French Guinea, Fouta Djallon, Dalaba 1200 m, 27. 6. 1951: 1 ♀; French Guinea, Kankan 2. 7. 1951, B e c h y n e : 1 ♀; Nigeria, Kamerun, Enugu, 23. 10. 1951,

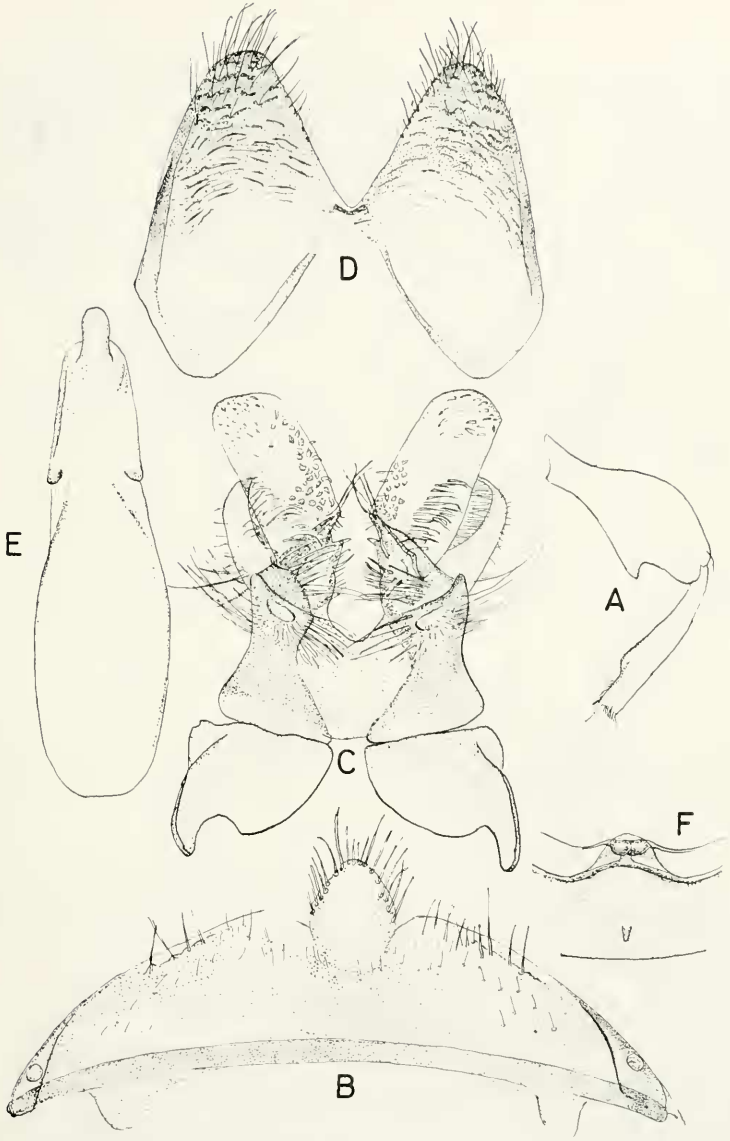

Fig. 4. *Formicomus mediospinis* n. sp.
A. Femur and tibia of front leg of ♂; B. last exposed abdominal sternite of ♂; C. sternite of retractile segment of ♂; D. tergite of retractile segment of ♂; E. tegmen of aedeagus; F. median area of first abdominal sternite of ♂.

Bechyne: 1 ♀; Nigeria, Kamerun, Enugu, 1. 11. 1951, Bechyne: 1 ♂, 1 ♀. (1—1,17).

Head: black and densely punctured. The posterior arch behind the eyes is broadly oval; Hair dorsally reddish and recumbent but procumbent on clypeus and labrum; short black and procumbent hairs along the posterior margin; ventrally the hairs are sparse, black and procumbent; dorsally and laterally a few fine erect hairs.

Prothorax: very dark testaceous to black; over the median dorsal area densely pitted but laterally smooth and glossy. Round in front, constricted at posterior quarter. Hairs whitish, recumbent and rather long. There are a few fine erect hairs.

Elytra: glossy, very dark testaceous to black; shoulders are angular. At the anterior quarter a very slight transverse depression; no hairband.

Hairs recumbent and a few fine erect hairs.

Seen by means of transmitted light the elytral punctures are surrounded by a darker area similar to *F. schimperi* (fig. 2F) but there is less contrast between the dark areas and the lighter background.

Wings: fully developed.

Antennae: light testaceous, the distal 5—6 segments dark testaceous.

Legs: dark testaceous.

Male characteristics as figured (fig. 4). Note the single median spine on the first abdominal sternite of the male.

Formicomus **kumbaensis** n. sp.

Nigeria, Kamerun, Distr. Kumba, 17. 11. 1955, Bechyne: 4 ♂ ♂; Nigeria, Kamerun, Distr. Kumba, Lake Barombi, 24. 11. 1955, Bechyne: 1 ♀; Kamerun, Fotabe, 1957, Kutter: 1 ♂.

Length: 3,3 mm (3,1—3,3). Width over broadest part of elytra: 1 mm.

Head: posterior half triangular i. e. the outline of the head narrowing from the eyes backwards along almost straight lines towards the collar; black, glossy; dorsally and ventrally with recumbent hairs and a few erect hairs; hairs on labrum procumbent.

Prothorax: narrowed and depressed at posterior third; black and moderately glossy; with recumbent and a few erect hairs.

Elytra: shoulders somewhat angular; black, glossy, with recumbent hairs longer and sparser than on prothorax and a few erect hairs.

Wings: fully developed.

Antennae: long and slender; testaceous, somewhat darkening towards apex.

Legs: black to dark testaceous, the distal parts somewhat lighter.

Undersurface: black with recumbent hairs.

Male characteristics as figured (fig. 5).

Characteristic is the long spine on the front femur of the male and the spine and tubercle on the front tibia. There are points of resemblance to *F. bouvieri* Pic (1911) e. g. in the metathoracic sternite and the last exposed abdominal sternite (cf. van Hille 1967).

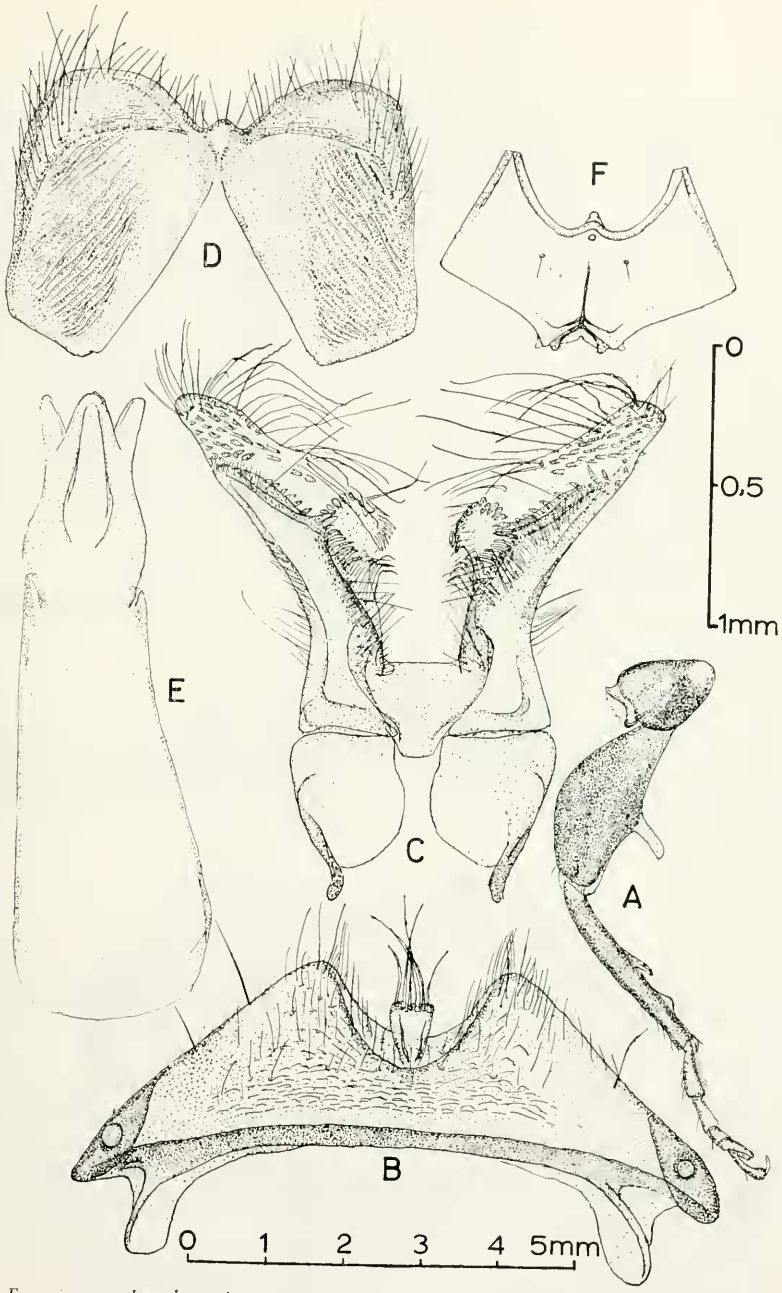

Fig. 5. *Formicomus kumbaensis* n. sp.
A. Front leg of ♂; B. last exposed abdominal sternite of ♂; C. sternite of retractile segment of ♂; D. tergite of retractile segment of ♂; E. tegmen of aedeagus; F. metathoracic sternite of ♂.
(B, C, D and E at same scale; A and F as indicated).

Formicomus **barombiensis** n. sp.

Nigeria, Kamerun, Dist. Kumba, Bombe, 17. 11. 1955, B e c h y n e : 1 ♂, 6 ♀♀;
Nigeria, Kamerun, Dist. Kumba, Lake Barombi, 11. 1955, B e c h y n e : 1 ♂, 4 ♀♀;
Nigeria, Kamerun, Kumba, 15. 11. 1955, B e c h y n e : 3 ♀♀.

L e n g t h : 4,36 mm (3,79—4,82). Width over broadest part of elytra: 1,35 mm (1,17—1,48).

H e a d : slender; posterior half triangular i. e. the outline of the head narrowing from the eyes backwards by an almost straight line to the collar; black, somewhat chagrinated, with short recumbent hairs and a few longer erect hairs.

P r o t h o r a x : round in front, narrowed and depressed at posterior third and raised again behind the depression; chagrinated over the median dorsal area, laterally smooth and glossy; black, with short recumbent hairs and a few erect hairs.

E l y t r a : black, glossy; shoulders somewhat angular; with a slight posthumeral depression where the hairs are implanted more closely than over the rest of the elytra but not forming a distinct hairband as the hairs, somewhat irregularly, are pointing to the median line; the more posterior and lateral hairs are recumbent, and a few erect hairs are present.

W i n g s : fully developed.

A n t e n n a e : testaceous, darkening towards the apex; the last segment hardly longer than the penultimate one.

L e g s : dark testaceous to black; the tarsi somewhat lighter.

U n d e r s u r f a c e : dark testaceous with recumbent hairs.

Male characteristics as figured (fig. 6).

Externally this species resembles *F. kumbaensis* which has an overlapping area of distribution. External differences are the larger size, the prothorax being raised behind posterior depression and the peculiarly orientated hairs on the post-humeral depression of the elytra.

Formicomus **foutensis** n. sp.

French Guinea, Fouta Djallon, Dalaba 1200 m, 11. 6. 1951, B e c h y n e : 2 ♂♂.

L e n g t h : 3,94 mm. Width over broadest part of the elytra: 1,04 mm.

H e a d : testaceous, glossy; posterior margin behind the eyes oval; with fine recumbent hairs and a few posterior erect hairs.

P r o t h o r a x : oval in front, narrowed at posterior third; longitudinally striated over the median anterior area but transversely striated behind the constriction; testaceous and somewhat glossy. Hairs longer than on head and recumbent.

E l y t r a : slender, the shoulders somewhat sloping and angular; glossy, testaceous, slightly lighter than prothorax. Hairs fine and recumbent, longer than on prothorax and not forming a transversal hairband.

W i n g s : fully developed.

A n t e n n a e : light testaceous, the last three segments a little darker.

L e g s : light testaceous.

Male characteristics as figured (fig. 7). The basal lateral hairs of the sternite of the retractile segment are broadly flattened, very thin and colourless.

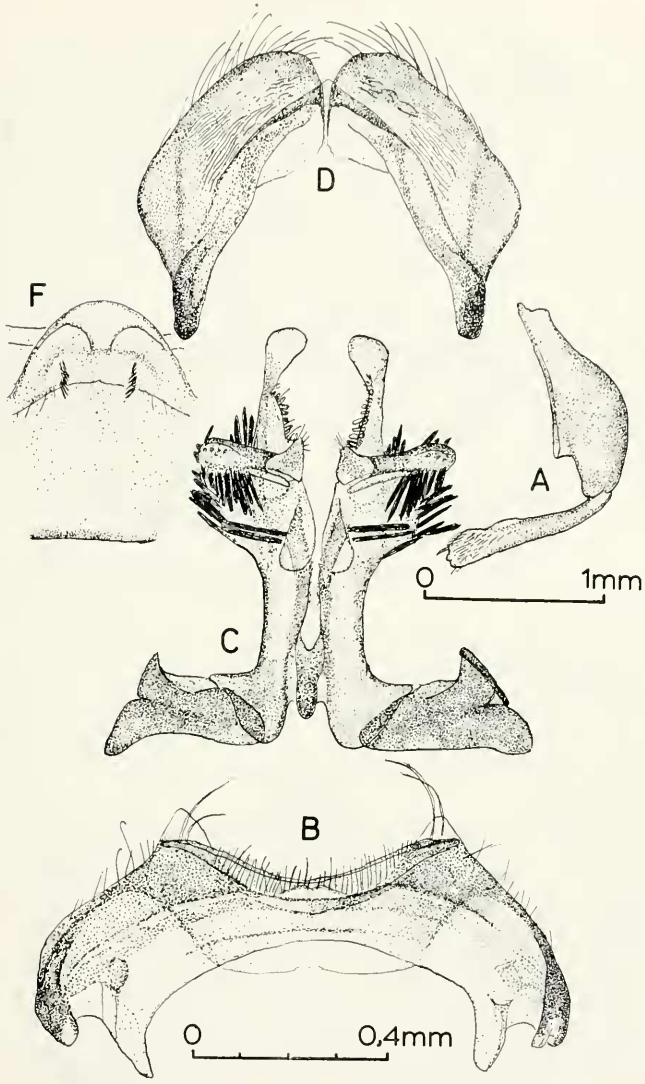

Fig. 6. *Formicomus barombiensis* n. sp.
A. Front leg of ♂; B. last exposed abdominal sternite of ♂; C. sternite of retractile segment of ♂; D. tergite of retractile segment of ♂; F. median area of first abdominal sternite of ♂.
(B, C, D and F at same scale; A as indicated).

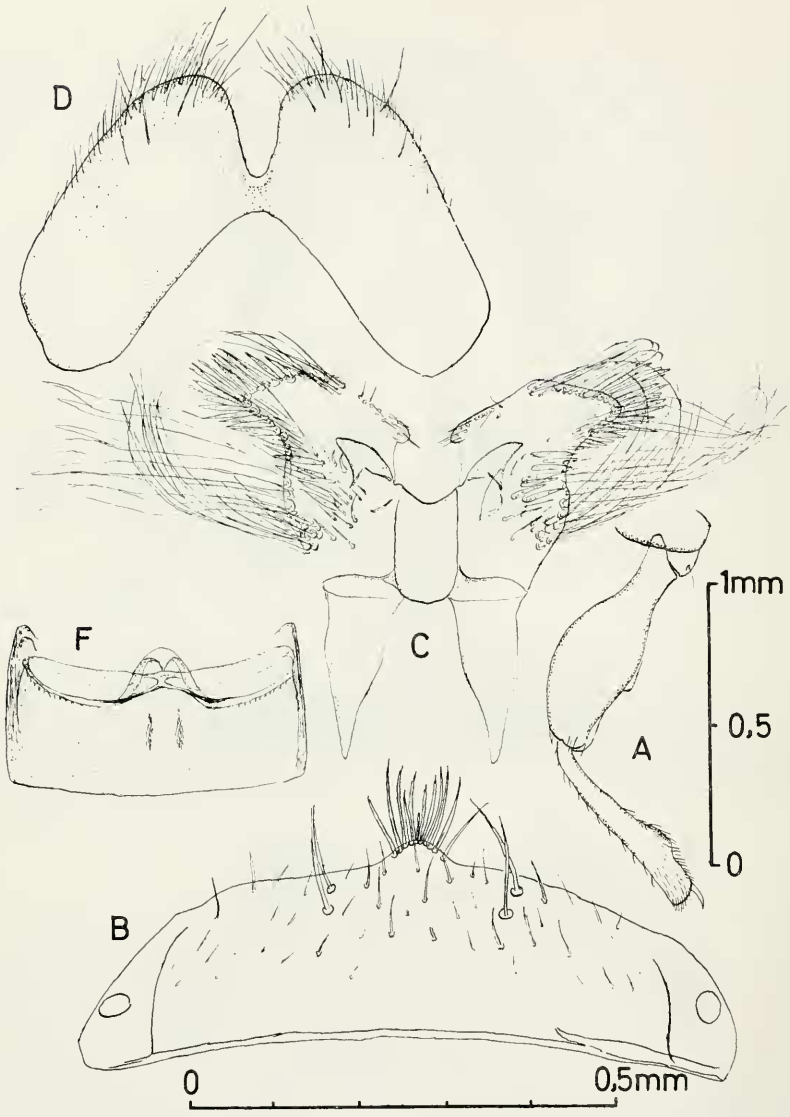

Fig. 7. *Formicomus foutensis* n. sp.
A. Femur and tibia of front leg of ♂; B. last exposed abdominal sternite of ♂; C. sternite of retractile segment of ♂; D. tergite of retractile segment of ♂; F. first abdominal sternite of ♂.
(B, C and D at same scale; A and F as indicated).

References

Bonadona, P. 1969. Contributions à la connaissance de la faune entomologique de la Côte d'Ivoire (J. Decelle 1961—1964) 39, Coleoptera Anthicidae. Ann. Mus. Roy. Afr. Centr. in 8° Zool., Tervueren, **175**: 317—332.

Fairmaire, L. 1893. Matériaux pour la faune coléoptérique du Senegal. Ann. Soc. ent. France: 146—158.

Pic, M. 1892. Descriptions de deux Anthicides exotiques. Rev. Ent. Franç. **12**: 254.

— — 1898. Anthicides (Col. Hétéromères) africains nouveaux des collections du Museum de Paris. Bull. Mus. Hist. nat. **2**: 67—71.

— — 1900. Diagnoses de divers „Anthicidae" et d'un „Entypodera"; de l'Afrique orientale. Échange **16**: 59.

— — 1921. Rhipidoceridae and Anthicidae. Voy. Babault Afrique or. angl. Paris: 1—32.

— — 1939. Coleoptera 18. Rhisopaussidae, Pedilidae, Hylophilidae, Anthicidae, Scraptiidae, Mordellidae, Oedemeridae, Alleculidae. Mission scientifique de l'Omo **5**, fasc. 48: 153—170.

Van Hille, J. C. 1967. Genus Formicomus (Coleoptera, Polyphaga) (Family Anthicidae) Parc national de la Garamba. Mission H. de Saeger. Institut des Parcs Congo. Bruxelles: 3—33.

— — 1977. The African species of the genus *Formicomus* with mat elytra (Coleoptera, Anthicidae). J. ent. Soc. sth. Afr. **40** 1: 99—104.